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(FILE 'HOME' ENTERED AT 14:17:03 ON 26 APR 2006)

FILE 'MEDLINE, AGRICOLA, BIOSIS' ENTERED AT 14:17:18 ON 26 APR 2006

L1 3115391 S PLANT  
L2 3474980 S DNA OR GENE OR POLYNUCL?  
L3 1226032 S TRANSFOR? OR TRANSFECT? OR RECOMBIN? OR BIOLISTIC OR AGROBACT  
L4 22 S GOS2  
L5 279511 S PROMOTER  
L6 13 S L4 AND L3  
L7 7 DUP REM L6 (6 DUPLICATES REMOVED)

=> type 17 1-7 all

L7 ANSWER 1 OF 7 MEDLINE on STN  
AN 2001461223 MEDLINE  
DN PubMed ID: 11506359  
TI Glucocorticoid-inducible gene expression in rice.  
AU Ouwerkerk P B; de Kam R J; Hoge J H; Meijer A H  
CS Institute of Molecular Plant Sciences, Leiden University, Clusius  
Laboratory, The Netherlands.  
SO Planta, (2001 Jul) Vol. 213, No. 3, pp. 370-8.  
Journal code: 1250576. ISSN: 0032-0935.  
CY Germany: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
OS GENBANK-AF294979; GENBANK-AF294980; GENBANK-AF294981; GENBANK-AF294982  
EM 200206  
ED Entered STN: 20 Aug 2001  
Last Updated on STN: 25 Jun 2002  
Entered Medline: 24 Jun 2002  
AB We have studied the use of a glucocorticoid receptor-based inducible gene expression system in the monocotyledonous model plant rice (*Oryza sativa* L.). This system, originally developed by T. Aoyama and N.-H. Chua [(1997) Plant J 11: 605-612], is based on the chimaeric transcriptional activator GVG, consisting of the yeast Gal4 DNA-binding domain, the VP16 activation domain and the glucocorticoid receptor domain. For application in rice, we designed an optimized binary vector series (PINDEX) and tested this with the beta-glucuronidase (gusA) reporter gene. GUS expression was tightly controlled and relatively low concentrations (1-10 microM) of the glucocorticoid hormone dexamethasone (DEX) were able to induce GUS activities to levels comparable to those conferred by the strong cauliflower mosaic virus (CaMV) 35S promoter. DEX was taken up efficiently by the roots of tissue-cultured plantlets or mature plants in hydroponic culture, and induced GUS activity throughout the whole plant. DEX-induced GUS expression patterns were consistent in all lines and their T1 progeny. The phenotype of tissue-cultured rice plantlets was not affected when inductions with 10-100 microM DEX were limited to 1-4 days or when 2-week inductions were performed with 1 microM DEX, which was already sufficient to reach near-maximal GUS activity. However, 2-week inductions with 10 microM DEX caused growth retardation and developmental defects. As the severity of these effects varied between different lines, we could select lines with a mild phenotype for future use as activator lines in crosses with 'target' plants.  
CT Base Sequence  
\*Cloning, Molecular: MT, methods  
DNA-Binding Proteins: BI, biosynthesis  
\*Dexamethasone: PD, pharmacology

10/5/1.315  
4/24/06  
BD

## WEST Search History

DATE: Wednesday, April 26, 2006

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
<i>DB=PGPB,USPT,DWPI; PLUR=YES; OP=OR</i>			
<input type="checkbox"/>	L9	L8 or l7	14
<input type="checkbox"/>	L8	inze-dirk.in.	13
<input type="checkbox"/>	L7	hatzfeld-yves.in.	3
<input type="checkbox"/>	L6	l1 adj3 l3	24
<input type="checkbox"/>	L5	(l1 or l2) adj5 l3	1046
<input type="checkbox"/>	L4	(l1 or l2) and l3	14519
<input type="checkbox"/>	L3	promoter	160705
<input type="checkbox"/>	L2	rice	127198
<input type="checkbox"/>	L1	gos2	101

END OF SEARCH HISTORY

10/541, 315  
4/26/04  
60B